## ABSTRACT

It is an object of the invention to provide a droplet ejection apparatus and a method of detecting an ejection failure in droplet ejection heads capable of detecting an ejection failure in the droplet ejection heads by counting the number of reference pulses generated for a predetermined time period after a droplet ejection operation. The droplet ejection apparatus of the invention includes: a plurality of droplet ejection heads, each of the droplet ejection heads including a diaphragm, an actuator which displaces the diaphragm; a driving circuit which drives the actuator of each droplet ejection head; pulse generating means for generating reference pulses; a subtraction counter 45 for counting the number of reference pulses generated for a predetermined time period; and ejection failure detecting means for detecting an ejection failure of the droplets on the basis of the count value of the counter counted for the predetermined time period.